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Late Breaking

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DESCRIBING THE EFFECT OF THE COVID-19 PANDEMIC ON TB CARE IN UGANDA: A CROSS-SECTIONAL STUDY

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PURPOSE: The COVID-19 pandemic threatens to reverse global progress in reducing the burden of tuberculosis (TB) and is estimated to indirectly cause 6.3 million excess TB cases and 1.3 million excess TB deaths globally, primarily in low- and middle-income countries. Uganda, a low-income country in East Africa with high rates of TB, implemented a nationwide lockdown for all but essential services during the COVID-19 pandemic between March and June 2020. These mitigation measures likely led to interruptions in patient access to TB care services. Due to the high morbidity associated with delays in diagnosis and interruptions in TB care, it is necessary to determine the populations most at risk for TB care disruption. Our study aimed to compare access to TB diagnosis and treatment before, during and after the COVID-19 lockdown in Uganda.

METHODS: We reviewed medical records for patients with TB receiving care from January to September 2020 at an urban health facility in Kampala. We collected demographic data for individuals who were diagnosed with TB; attended clinic appointments for monthly medicine refills; and those who missed those clinic visits at three time periods: before lockdown (January-March 2020), during lockdown (April-June 2020), and after lockdown (July-September 2020). We compared characteristics across time periods using Fisher's exact test. We considered a statistically significant value of $p < 0.05$.

RESULTS: We reviewed medical records of 270 adults with a median age of 31.5 years and a median body mass index of 19.6 kg/m². The majority (66.7%, $n=180$) of participants were males and more than 80% ($n=218$) resided in urban Kampala. A third of patients (30.7%, $n=83$) were obese. The proportion of males who missed a TB clinic visit was higher than those who attended all monthly refill visits 73.2% vs. 57.4%, $p=0.03$. There was a significant reduction in patients seeking care during and after the lockdown among those who reside in Wakiso district ($p=0.03$), a semi-rural district near Kampala. There was a significant reduction in the number of obese patients seeking TB care during lockdown (22%) compared to before lockdown (47.8%) ($p < 0.01$). The proportion of females seeking TB care decreased during lockdown compared to before lockdown, however, this was not statistically significant ($p=0.55$).

CONCLUSIONS: COVID-19 pandemic mitigation measures led to significant reductions in the number of patients seeking care among those who reside in rural districts and live further away from TB care facilities. This was likely due to limitations on public transportation and an increase in transportation costs after lockdown. Men were more likely to miss TB clinic visits compared to females during the COVID-19 lockdown. Our results demonstrate the need for further studies to identify barriers to TB care and implement health system interventions to improve TB follow-up care during the pandemic.

CLINICAL IMPLICATIONS: These results show that patients who live far away from the facility are more likely to have difficulties in accessing TB care. In addition, men continue to miss TB clinic visit which is exacerbated by the COVID-19 pandemic mitigation measures. Due to difficulties in accessing TB care, there is a risk of increase in mortality and morbidity among TB patients as well as increased household and community transmission of TB disease.

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